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# Eighth progress report on the enterprise resource planning project

## Report of the Secretary-General

*Summary*

The present report is submitted pursuant to General Assembly resolution 64/243, in which the Assembly requested the Secretary-General to provide annual updates on the progress of the enterprise resource planning project, Umoja. The report provides an update since the issuance of the seventh progress report (A/70/369 and Corr.2).

Section III of the report outlines the considerable progress made between September 2015 and August 2016. Umoja is currently the operational system for more than 32,000 staff at 400 locations worldwide. For the first time, the Secretariat has a single, modern administrative solution that will enable the efficient and transparent management of the Organization's resources. Umoja employee and manager self-service represent the United Nations system's first successful deployment of such functionality on a global scale.

In November 2015, Umoja Integration (Foundation plus Extension 1) was deployed to all cluster 4 entities, namely United Nations Headquarters, the Economic Commission for Latin America and the Caribbean, the Economic Commission for Africa, the Economic Commission for Europe, the Economic and Social Commission for Western Asia, the United Nations Office at Geneva, the United Nations Office at Vienna, the United Nations Office on Drugs and Crime, the International Trade Centre and the international tribunals. In parallel, Extension 1 was rolled out to peacekeeping and special political missions, complementing Umoja Foundation, which had previously been deployed in clusters 1 and 2. That deployment was the

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most challenging of all Umoja deployments owing to the unprecedented volume and complexity. Strong governance, business engagement and good project management contributed to the success of the deployment. The Umoja post-implementation review task force is systematically addressing challenges arising after the deployments.

In July 2016, the service delivery functionality was extended to all peacekeeping and special political missions. In August 2016, a new module was implemented for automating the preparation of financial statements.

Section IV outlines the project workplans until 2018, including plans for the implementation of the full scope of Umoja by December 2018, as reiterated by the General Assembly in its resolution 70/248 A. The present report outlines the implementation strategy for Umoja Extension 2, covering primarily budget formulation, supply chain management, conference and event management, force planning and relationships with donors and implementing partners.

Section V contains updated assessments of qualitative and quantitative benefits, based on lessons learned from Umoja deployments across a larger user base and more diverse entities. In addition to outlining qualitative improvements, the present report highlights quantitative benefits amounting to $163.7 million that will have been realized by the end of 2019, compared with the range of $140 million to $220 million to which the Secretary-General had committed by the end of 2019. The cumulative benefits would reach $205.5 million in 2020-2021, when supply chain management stabilizes.

Section VI deals with mainstreaming, the criticality of reorganizing and restructuring the project's resources to address key staffing issues that could have an impact on the successful implementation of the workplan from 2016 to 2019, and the gradual downsizing of the project team, which eventually will be mainstreamed predominantly into the Office of Information and Communications Technology and partly into other business areas.

Section VIII includes a revised estimate of resources required for the biennium 2016-2017, as indicated in the seventh progress report of the Secretary-General; this represents a net increase of $26.8 million, after factoring in the unused funds for the biennium 2014-2015 due to the postponement of several activities related to Umoja Extension 2. The resource proposals also reflect the reprofiling of posts and the consolidation of functions in a revised structure of the project team necessary to successfully deliver Umoja Extension 2 and subsequently downsize the team.

Section X contains the recommended actions for the General Assembly, including a request to take note of the progress of the project, to approve the revised resource requirements for 2016 and 2017, including the proposed reorganization of post structures, and to take note of the projected resource requirements for 2018 and 2019.

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# I. Introduction

1. The present report is submitted pursuant to General Assembly resolution 64/243, in which the Assembly requested the Secretary-General to provide annual updates on the progress of the enterprise resource planning project, Umoja. The present report provides an update on the status of the project since the issuance of the seventh progress report (A/70/369 and Corr.2), as well as addresses the decisions of the Assembly in its resolution 70/248 A.

# II. Project management, governance and oversight

## A. Governance overview

2. Umoja continues to benefit from the strengthened governance model, first described in the fifth progress report (A/68/375 and Add.1). The Secretary-General remains a proactive champion of the project and intervenes personally as needed. The Management Committee, chaired by the Chef de Cabinet, reviews the project status quarterly and provides guidance on strategic issues. The Umoja Steering Committee, chaired by the Under-Secretary-General for Management, meets monthly to oversee the strategic and operational management of the project. Heads of business units are actively engaged and reinforce the awareness and commitment of their departments and offices.

3. Prior to the cluster 4 roll-out in November 2015, heads of business units participated as observers in the Steering Committee meetings. Together with the process owners and the project team, they provided confirmation to the Management Committee that all enablers necessary for a successful roll-out were in place, as recommended by the Board of Auditors.

4. Project management remained strong, with proactive monitoring mechanisms delivering the timely implementation of cluster 4. A master project plan, using collaborative web-based tools, proved essential for global teams to manage thousands of concurrent tasks. Fortnightly scorecards of the Secretary-General containing clear criteria and remediation steps ensured timely interventions for risk mitigation.

## B. Implementation of oversight bodies' recommendations

5. During the reporting period, the project was audited by both the Board of Auditors and the Office of Internal Oversight Services (OIOS).

6. The Board of Auditors, in its fifth annual progress report on the implementation of Umoja (see A/71/180), recognized that implementing Umoja globally was a significant achievement. While acknowledging that it was common for enterprise resource planning implementations of such complexity to experience challenges, the Board nevertheless recommended several improvements.

7. Reflecting the project's progress from the design, build and test phases to the deployment of Umoja Integration, the report of the Board of Auditors focused on

the responsibilities of the Secretariat business units to ensure user adoption through training, benefits realization and mainstreaming of the appropriate project activities into the normal operations of the Organization.

8. The Board acknowledged progress in the implementation of the recommendations to: (a) develop a detailed and fully integrated project plan and significantly enhanced project management arrangements to enable more detailed cost and timetable forecasting, and control of risks, including appropriate scenario and contingency planning; and (b) establish a formal approach to managing and improving business processes to enable continuous reform and improvement following implementation of the enterprise resource planning system.

9. Of the 16 recommendations brought forward from its previous reports, 2 have been fully implemented, 13 are in progress, and 1 has been closed by the Board. The Board also recognized that the implementation of some recommendations was justifiably still in progress.

10. OIOS also conducted several audits during the period. The focus and objectives of the reviews had a greater emphasis on assessing the implementation and change management undertaken by the implementing entities. As at June 2016, 14 recommendations had been directed specifically to the project for implementation. The project has presented evidence and proposed the closure of seven recommendations targeted for the end of August 2016; those are under consideration by OIOS.

# III. Project status

## A. Overview of project milestones and achievements

11. In December 2012, the General Assembly, by its resolution 67/246, approved a revised plan for completing the design, build and deployment of Umoja Foundation and Extension 1 by December 2015. By November 2015, Umoja Foundation and Extension 1 had been deployed throughout the United Nations Secretariat, except for Extension 1 for national staff and individual uniformed personnel in peacekeeping and special political missions, which was planned for implementation in 2016 as part of cluster 5.

12. The full scope of Umoja will be achieved with the completed implementation of Extension 2 by December 2018, as decided by the General Assembly.

13. An overview of the major milestones of the project is presented in table 1 below.

Table 1
**Umoja major project milestones, 2013-2018**

| *Date* | *Phase* | *Umoja deployment* | *Status* |
|---|---|---|---|
| July 2013 | Foundation | Pilot at UNIFIL and UNSCOL | Completed |
| November 2013 | | Cluster 1: Foundation deployed to all peacekeeping missions | Completed |
| March 2014 | | Cluster 2: Foundation deployed to all special political missions | Completed |
| July 2014 | Integration pilot | Umoja Extension 1 deployed to MINUSTAH | Completed |
| | Foundation | Real estate deployed to United Nations Headquarters, UNON and ECA | Completed |
| November 2014 | | Real estate deployed to the entire Secretariat | Completed |
| June 2015 | Integration | Cluster 3: Foundation and Umoja Extension 1 deployed to the Office for the Coordination of Humanitarian Affairs, UNON, UNEP, UN-Habitat, ESCAP and UNAKRT | Completed |
| November 2015 | | Cluster 4: Foundation and Umoja Extension 1 deployed to United Nations Headquarters, UNOG, UNOV, ECA, ESCWA, ECLAC, ECE and the international tribunals | Completed |
| | Extension 1 | Cluster 4: Umoja Extension 1 deployed to special political missions and peacekeeping missions | Completed |
| July 2016 | Foundation | Service delivery deployed to special political and peacekeeping missions | Completed |
| | ICSC | ICSC phase 1: changes to relocation-related elements and some field allowances and benefits | Completed |
| August 2016 | Integration | Financial statements (vol. II) | Completed |
| November 2016 | Extension 1 | Cluster 5: Umoja Extension 1 implemented for national staff as well as individual military personnel in special political and peacekeeping missions | In progress |
| | ICSC | ICSC phase 2: mobility incentive plus the discontinuation of the non-removal allowance | In progress |
| January 2017 | Integration | Financial statements (vol. I) | In progress |
| September 2017 | Extension 2 | Supply chain management (phase 1) | In progress |
| | ICSC | ICSC phase 3: unified salary scale, transitionary measures and other changes effective 1 January 2017 | In progress |

| *Date* | *Phase* | *Umoja deployment* | *Status* |
|---|---|---|---|
| | Integration | Continuous improvements — Foundation and Umoja Extension 1 | In progress |
| January 2018 | ICSC | ICSC phase 4: education grant | In progress |
| August-September 2018 | Extension 2 | Budget formulation | In progress |
| September 2018 | Extension 2 | Supply chain management (phase 2) | Not started |
| | | Conference and event management | Not started |
| | | Other Umoja Extension 2 projects | In progress |
| | SAP upgrade | Technical SAP upgrade | Not started |
| December 2018 | Extension 2 | Supply chain management (phase 3) | Not Started |
| | | Fundraising and donor relationship management | Not started |
| | | Implementing partners | Not started |
| | | Force management | Not started |

*Abbreviations*: ECA, Economic Commission for Africa; ECE, Economic Commission for Europe; ECLAC, Economic Commission for Latin America and the Caribbean; ESCAP, Economic and Social Commission for Asia and the Pacific; ESCWA, Economic and Social Commission for Western Asia; ICSC, International Civil Service Commission; MINUSTAH, United Nations Stabilization Mission in Haiti; UNAKRT, United Nations Assistance to the Khmer Rouge Trials; UNEP, United Nations Environment Programme; UN-Habitat, United Nations Human Settlements Programme; UNIFIL, United Nations Interim Force in Lebanon; UNOG, United Nations Office at Geneva; UNON, United Nations Office at Nairobi; UNOV, United Nations Office at Vienna; UNSCOL, Office of the United Nations Special Coordinator for Lebanon.

14. The Umoja solution is currently supporting a complex organization in more than 400 global locations. Employee and manager self-service, both representing pioneering deployments across the United Nations system, are recording high levels of usage, reflecting growing adoption. Overall, the solution is stabilizing, with improvements increasingly acknowledged in many areas.

15. In July 2016, the service delivery functionality was extended to all peacekeeping and special political missions to streamline cost recovery activities. The financial statements module was launched for peacekeeping operations in August 2016. Umoja Extension 2 budget formulation and supply chain management have made considerable progress.

16. The Umoja team has continued to provide global production support and implemented several enhancements to the transaction systems, self-service portal and business intelligence. Umoja training has focused on building local capacity, to facilitate the mainstreaming of sustainable training.

## B. Progress: September 2015 to August 2016

### Cluster 4 deployment

17. In his seventh progress report, the Secretary-General highlighted the challenges relating to the timely deployment of cluster 4, due especially to the compressed timeline between clusters 3 and 4, the unprecedented scope in terms of the number of entities and users, and the amount of data to be cleansed, enriched and converted. Despite those challenges, Umoja Integration was successfully rolled out to all cluster 4 entities, namely United Nations Headquarters, the Economic Commission for Latin America and the Caribbean, the Economic Commission for Africa, the Economic Commission for Europe, the Economic and Social Commission for Western Asia, the United Nations Office at Geneva, the United Nations Office at Vienna, the United Nations Office on Drugs and Crime, the International Trade Centre and the international tribunals. Simultaneously, Extension 1 was rolled out to the field for all peacekeeping and special political missions, which were already operating with Umoja Foundation since the roll-out of clusters 1 and 2 in 2013 and 2014, respectively.

18. Cluster 4 represented the biggest and most complex Umoja deployment to date. It expanded the user base from nearly 12,000 to about 32,000 and involved the largest deployment of employee and manager self-service. The change management effort was therefore much greater and more geographically dispersed than in all other deployments.

19. The cluster 4 deployment was predictably challenging. It involved rolling out harmonized business processes covering a vast range of functionality, including workforce management, time management, payroll, organizational management, travel management, finance, budget, procurement, logistics, project management and support services, concurrently to a large number of Secretariat entities with divergent business models, systems and practices. Nevertheless, all deployment activities proceeded as planned and normal operations resumed on time.

### Service delivery

20. The service delivery functionality, which was first deployed to cluster 3 in June 2015 and later to cluster 4 in November 2015, was extended to all peacekeeping and special political missions and to the Department of Field Support at Headquarters on 1 July 2016. The globalization of that functionality allows all the Secretariat entities that provide services to internal and external clients to manage the costs and billings for their services and paves the way for the harmonization of service catalogues and cost structures. More than 900 activity types were mapped for missions, predominantly in logistics support services, medical services and facilities management, building on the 3,200 activity types that had been mapped for clusters 3 and 4. For that deployment, nearly 100 persons from the missions invested about 7,800 hours for data collection, enrichment and conversion, as well as training facilitation.

21. The service delivery functionality will increase access to shared services, improve the tracking of cross-mission services and charges and address other cost

recovery management challenges, such as monitoring receivables and managing liquidity.

**Financial statements**

22. The financial statements project was designed to automate the preparation of financial statements using Umoja and replace a cumbersome process across several systems and multiple spreadsheets and Word documents.

23. The financial statements module, encompassing new functionality and technology tools, was launched for peacekeeping operations in August 2016, marking another key milestone in complying with the mandate from the General Assembly, in its resolution 68/247, to use Umoja as the backbone for compliance with the International Public Sector Accounting Standards (IPSAS). It will be launched for all other operations in January 2017, for preparing the 2016 financial statements.

24. That automation has been implemented using two new SAP modules, business planning and consolidation and disclosure management. The centralized data repository of business planning and consolidation contains readily accessible financial data from Umoja and provides a more streamlined process for the consolidation and preparation of financial statements. With business planning and consolidation and disclosure management, financial statements and associated notes are produced predominantly with automated processes, complemented by a few tightly controlled manual processes with full documentation and audit trails.

25. In building the functionality, the requirements of all the volumes of financial statements were taken into consideration, harmonizing the design and development wherever possible. However, the solution is also designed to accommodate the specialized requirements of each volume.

26. Besides Umoja personnel, 11 staff have devoted nearly 2,500 hours for the prototype, design, build and testing related to financial statements for peacekeeping operations. Additional incremental effort is expected until the end of the year for the automation of the other volumes. The strong engagement from business units will enable the rapid mainstreaming of that function.

**Business intelligence**

27. During the reporting period, business intelligence focused on capacity-building. The Umoja business intelligence data model was enhanced to provide a better foundation for developing reports, dashboards and analytics. Report development was facilitated by developing a business intelligence academy curriculum, training more than 375 staff and building a global team of 40 certified business intelligence trainers to deliver training locally. Process owners expanded on the initiative by creating complementary functional training in the use of business intelligence data. Report creation by business intelligence power users is growing, while business intelligence usage has also increased steadily, with nearly three times as many users logging in daily compared with the previous year.

28. The Office of Information and Communications Technology has developed programmatic donor reporting, consolidating financial data from Umoja business

intelligence data with programme information from other legacy systems. The United Nations Office on Drugs and Crime is leveraging this to replace its current system, which provides online access to its donors, and to set the stage for similar capabilities for all Secretariat entities.

29. The Office of Information and Communications Technology is also coordinating the assignment of business intelligence resources globally to meet the growing demand for reports. The impending mainstreaming of Umoja business intelligence technical resources to the Office has to be accompanied by improved governance for prioritizing demand to ensure the optimal utilization of skilled resources.

## C. Stabilization efforts

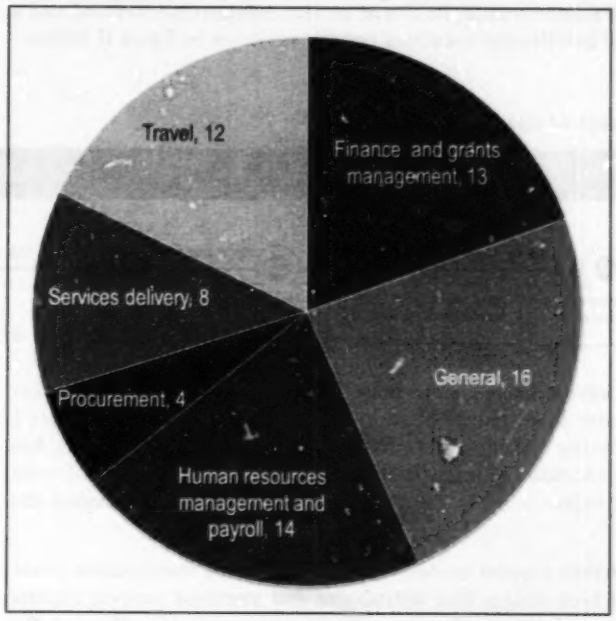
### Umoja post-implementation review task force

30. Problems surfaced in different areas during the cluster 4 stabilization phase, especially in the transition between budget periods. Drawing on lessons learned from previous deployments, the post-implementation review task force, chaired by the Controller, was revived to ensure the speedy resolution of issues reported by cluster 3 and 4 entities.

31. The task force provides a forum for business entities, process owners, the Chief Information Technology Officer and the Umoja team to engage on post-deployment issues, identify solutions and agree on closure.

32. Following two multi-day workshops, the issues raised by cluster 3 and 4 entities were harmonized into a set of 67 recommendations, reflected thematically in figure I. Recommendations are assigned to process owners and the Chief Information Technology Officer, with target resolution dates. Progress is monitored by the task force in videoconferences held every two weeks. Depending on the complexity of issues, virtual working groups or special workshops are used, ensuring suitable representation for affected entities. Of the 67 recommendations, 13 were categorized as continuous improvements to be addressed over time, and the rest were targeted for closure by the end of 2016.

Figure I
**Key recommendations of the Umoja post-implementation review task force, by functional area**




33. While data and system problems were among the issues identified and resolved, the dominant theme has been the overall change management challenge, exacerbated by the tension between the "as-is" model and the new operational model imposed by the globalization of operations and the standardization of processes. Examples include master data management, payments and bank reconciliation, which increase dependence on other Secretariat entities. Conversely, globalizing operations in a single system has created demand for greater access to faster or cheaper services provided by other Secretariat entities. Consequently, many recommendations seek changes to policies and procedures to leverage the opportunities presented by Umoja.

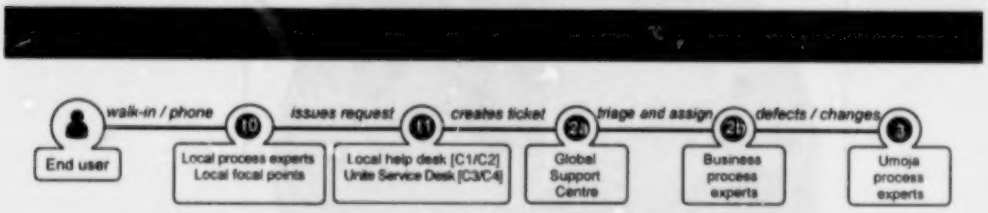
34. Some recommendations stressed the need to streamline end-to-end processes, while others focused on changing the controls around approvals. Several service providers also requested more operational reports and cross-functional dashboards to improve the management of services.

35. Notable outcomes of the task force interventions were: (a) a new diagnostic tool for troubleshooting payroll problems; (b) affirmation that complex payment blocks were working as designed and development of new reports for detecting payment problems; (c) identifying the imperative for new distribution of responsibilities for successfully netting vendors' receivables against their payables; and (d) driving useful changes to the system, policies and procedures for the management of meeting participants and travel, among others.

**Production support**

36. Production support arrangements were strengthened following the recommendations of the post-implementation review task force for clusters 1 and 2. Tickets are logged and tracked through the iNeed service management system, and a multi-tiered arrangement handles and escalates tickets, as shown in figure II below.

Figure II
**Service/help desk: concept of operations**




37. The support tiers have resolved more than 54,500 service requests in a year since the roll-out to cluster 3. Although the resolution of service requests by tiers 1 and 2a has been improving steadily, the shortage of local process experts has resulted in tickets being escalated to higher tiers. Similarly, tier 2b tickets tend to be escalated to the Umoja team owing to the shortage of process experts among the process owners.

38. Overall, the production support model has worked, but the stabilization phase for clusters 3 and 4 has been longer than anticipated and stretched process experts both in the Umoja team and among the process owners, negatively affecting the Umoja Extension 2 design and build.

**Communication and change management**

39. Communication and change management efforts have been increased in coordination with the business, covering a multitude of channels to inform end users and the business community of technical, policy and process improvements. Release notes, weekly user newsletters, iSeek articles, an improved Umoja website and an Umoja companion smartphone application have improved the user-friendliness and timely flow of information. During deployments, communication and change management activities are intensified in unison with the deploying entities through weekly conferences, town halls, self-service kiosks and "go-live" celebrations. Communications are also targeted separately at senior and middle managers, staff at large and other Umoja stakeholders.

**Umoja training**

40. Umoja training focused on building local capacity and developing technical skills, reflecting the emphasis of the General Assembly, in its resolution 70/248 A, on effective training for Umoja as part of an integrated approach to training and capacity development.

41. A blended learning approach was implemented in cooperation with the Office of Human Resources Management, comprising a mix of computer-based training,

instructor-led training and distance learning packages, organized into 13 functional areas.

42. The Umoja Academy, which targets managers, process experts and local process experts, focused initially on developing local process experts. More than 1,250 staff members have successfully completed an Umoja Academy local process experts programme in one or more functional areas. Out of that group, a subset was also trained to become local process expert trainers. By July 2016, nearly 29,000 individuals had taken one or more Umoja courses and more than 1,800 managers had attended the Umoja Academy for managers.

43. Ensuring adequate training was challenging for clusters 3 and 4, owing to the geographical dispersion and high volumes of transactional end users. Training targets for establishing a critical mass of trained users were met; however, substantial shifts in user access after going live created additional demand, which is being met through end user training delivered by local process expert trainers.

44. Local process experts are nominated end users who have a complete knowledge of their functional areas and demonstrate a thorough understanding of the Umoja transactional process. Local process experts are critical for providing tier 0 support by reporting, troubleshooting and creating effective iNeed tickets. A continuing challenge for cluster 3 and 4 entities has been the ability to maintain a sufficient team of local process experts locally, as well as release local process expert trainers to meet production support and end user training requirements. To alleviate the problem, Umoja Academy programmes are being deployed globally in 2016 and 2017.

45. Currently, 121 process experts are certified in one or more functional areas. The process expert certification approach is also being re-evaluated, to certify staff with proficiency acquired through experience and to leverage that population for local process expert training. Furthermore, the business intelligence academy has been developed as a cross-functional, joint programme managed by the process owners.

**Lessons learned**

46. Umoja brings the most important business transformation to the United Nations in its 70-year history, creating tension between "as-is" and "to-be" business processes and models, including adapting to the stricter operational and fiscal discipline that the system enforces. New service delivery models and the delineation of roles and responsibilities will be needed to resolve many of the issues, along with strong change management. Efforts are being made by the business to resolve change management challenges, including clearing transaction backlogs promptly, updating policies, simplifying processes and streamlining service delivery.

47. One of the most significant changes is the introduction of end-to-end process management, which requires the Organization to adopt a horizontal, cross-functional view of its administrative tasks in order to fully achieve its objectives of improving productivity, lowering costs, reducing cycle times, increasing transparency and enhancing the quality of services.

48. Operational excellence can be achieved and sustained only when management structures, policies and procedures are aligned to support business process performance. This presents an opportunity to further streamline the solution through continuous improvements, apply lessons learned from earlier deployments, implement additional changes to policies and procedures while staying aligned with the global service delivery model initiative, and strengthen learning mechanisms to promote the adoption of new standards and ways of working.

# IV. Preparation for future roll-outs

## A. Cluster 5

49. Cluster 5 is the implementation of Extension 1 for more than 11,600 national staff and 8,700 individual uniformed personnel in 38 peacekeeping and special political missions (except the United Nations Operation in Côte d'Ivoire, which will end its deployment term at the end of June 2017, in accordance with Security Council resolution 2284 (2016)).

50. Cluster 5 deployment, originally planned for April 2016, as illustrated in figure I of the seventh progress report, was postponed to September 2016 to continue strong stabilization support for clusters 3 and 4. While preparations were on track for deployment on that revised schedule, the Steering Committee accepted a recommendation on 30 June 2016 from the Umoja project team and the Department of Field Support to postpone implementation by two more months, to November 2016. The following factors influenced that decision: (a) the first payroll parallel test results identified additional data updates needed in legacy systems, leaving insufficient time to design and retest resulting changes to data conversion processes before the final "dress rehearsal"; (b) the extensive changes to the organizational structures of numerous peacekeeping missions that were approved for the period 2016/17 were not fully known during the planning for cluster 5, and the schedule did not allow sufficient time for a mock conversion to be undertaken with the new organizational structures prior to the dress rehearsal; and (c) an additional payroll parallel test cycle was advisable because it would greatly reduce risks arising from data problems.

51. Although no new functionality is being deployed, cluster 5 is challenging, owing to the significant data cleansing and enrichment to be undertaken in several legacy systems and the change management activities needed in field duty stations, as well as Headquarters. More than 600 persons have been involved in data cleansing and enrichment, deployment coordination, user access mapping, training facilitation and change management, representing a significant effort by the missions in the field and the Department of Field Support and the Department of Management at Headquarters.

52. The deployment in November 2016 is on track, as: (a) the second payroll parallel test results were promising; (b) the third payroll parallel test cycle started earlier than planned, allowing more time for data cleansing before the dress rehearsal; and (c) training and change management activities are on schedule.

## B. Changes to the International Civil Service Commission compensation package

53. Plans for implementing the changes to the International Civil Service Commission (ICSC) compensation package were initially based on the implementation strategy outlined in the note by the Secretary-General on the implementation of the new common system compensation package in the United Nations Secretariat (A/70/896 and Corr.1). The implementation activities encompass: (a) installation of SAP-provided software changes; (b) technical verification of software changes; (c) technical analysis of software impact on other areas of the enterprise resource planning solution; (d) adjustments to affected software enhancements and reports; (e) preliminary user testing of the solution to verify delivery of business requirements; (f) data collection and validation; (g) final user testing; (h) updating training materials and documentation; (i) delivery of end user training covering policy and system components for a large global population.

54. The implementation comprises the following four phases, aligned with the delivery of software changes by SAP:

(a) Phase 1 was implemented on schedule on 1 July 2016 for all elements mandated by the General Assembly except the new mobility incentive and the discontinuation of the non-removal allowance; the related software changes were delivered by SAP on 15 June 2016;

(b) Phase 2, scheduled for implementation on 1 November 2016, includes the new mobility incentive and the discontinuation of the non-removal allowance. The software changes delivered in June 2016 are being tested concurrently with data collection and validation;

(c) Phase 3, comprising all changes mandated by the General Assembly effective 1 January 2017, is scheduled for implementation on 1 September 2017. An SAP design workshop, with participation from all United Nations system entities using SAP, was organized in New York to facilitate extensive participation by Secretariat staff. SAP has committed to delivering the software changes for phase 3 on 31 October and 30 November 2016; SAP has also recommended a six-month testing period, on account of the extensive changes to the system. Phase 3 will involve significant manual data collection and enrichment to address requirements related to "single parent" status, as well as temporary personal pensionable remuneration scales;

(d) Phase 4, comprising the new education grant scheme, is scheduled to be implemented on 1 January 2018, as mandated by the General Assembly, with related software changes being delivered by SAP on 31 March 2017.

## C. Umoja Extension 2

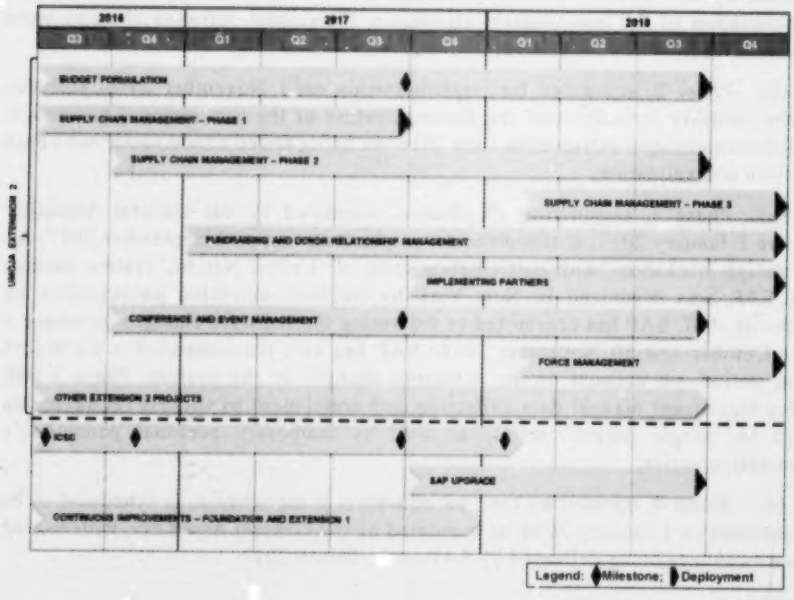
55. In December 2012, the General Assembly, by its resolution 67/246, approved the complete implementation of the full scope of the project by December 2018 at the latest, taking into account the comments and recommendations contained in paragraph 53 of the report of the Advisory Committee on Administrative and Budgetary Questions (A/67/565).

56. Furthermore, in December 2015, the General Assembly, by its resolution 70/248 A, requested the Secretary-General to take proactive measures to address the remaining challenges and risks relating to the implementation of Umoja and to ensure that the project was fully deployed by December 2018, in line with the revised timeline approved by the Assembly in its resolution 67/246.

57. The complete scope of Umoja was structured into a total of 321 processes. Of those, 122 correspond to Umoja Foundation, 66 to Extension 1 and 133 to Extension 2. The present report outlines the schedule and workplan for implementing the full scope of Umoja by December 2018.

58. The Umoja Extension 2 processes have been grouped logically into separate projects in order to implement them. Figure III provides a summary of the implementation plans for all Extension 2 projects, as well as all other deployments until the end of 2018, such as ICSC changes, an SAP software upgrade and ongoing enhancements to Umoja Foundation and Extension 1. The Extension 2 projects are explained in more detail below.

Figure III
**Umoja schedule and workplan, 2016-2018**




## Budget formulation

59. The budget formulation project covers a wide range of functionality, which reflects the breadth of activities undertaken throughout the United Nations. In addition to the life cycle of a budget from the formulation of initial guidance, managers' resource planning, through legislative and governing bodies' review and

approval, to performance reporting to governing bodies, donors and other stakeholders, the functionality will cover standard costing and recosting of parameters (including price inflation and exchange rate movements), which will enable resource requirements to be modelled and sensitivity analysis to be performed on budget estimates. Managers will be able to model the delivery of different programmes and mandates using alternative funding levels, for example for voluntary contributions, as well as cost the decisions of legislative and governing bodies, such as programme budget implications, or revised budgets following Security Council decisions.

60. Umoja programme management includes the development of detailed plans by programme and consolidating them within results-based management frameworks, with expected accomplishments and indicators of achievement. It also encompasses the ongoing appraisal of programme activities, monitoring and evaluation, cost forecasting, and cost and performance reporting. As part of programme completion and closure, it also covers the return of unused funds, in addition to the evaluation of the delivery of outputs and their contribution to the expected accomplishments.

61. The project will also build on the project management functionality already deployed under Umoja Foundation, particularly in relation to approvals for changes to project plans and proper record-keeping and internal controls, such as procedures for monthly closures.

62. Included are several processes under the umbrella of force management as they relate to the planning or adjustment of a mission after mandate approval by the Security Council, as well as the planning for the downsizing or liquidation of a mission. By integrating major elements, the project will be able to support resource planning for both the start-up and liquidation of missions.

63. The project has a steering group chaired by the Controller, who is also the process owner. To ensure strong business ownership, the group comprises representatives from all the key business groups throughout the Secretariat, including field operations in such areas as humanitarian assistance, human rights and environmental programming, which have large voluntary contribution bases, in addition to peacekeeping and peacebuilding operations. The diversity of activities and financing structures that the solution needs to serve made it imperative to embed dedicated staff from the different business areas in the Umoja project team.

64. After extensive consultations, analysis and a recent workshop, the Umoja project was able to finalize the choice between two SAP software options for the budget formulation functionality. A limited proof of concept exercise is being held in October 2016 to validate critical assumptions about technical software capabilities that influenced the software choice and to provide a robust basis for identifying and evaluating areas where the selected software may need augmentation.

65. Detailed milestones for the project schedule will be finalized after the proof of concept exercise in October 2016; the Umoja project envisages multiple prototypes to be followed by a comprehensive proof of concept, akin to a pilot deployment, around August 2017. The first deployment is planned for August/September 2018 concurrently for peacekeeping budgets for 2019/20, the programme budget for the

biennium 2020-2021 and voluntary contribution activities commencing in late 2018 or early 2019.

**Supply chain management**

66. Supply chain management is a collection of advanced capabilities, such as planning in the areas of demand, supply, production, transportation and long-term capabilities. It encompasses three main interrelated areas: (a) plan and manage; (b) receive to distribute; and (c) employ to dispose.

67. Supply chain management will be delivered in three phases to allow the Organization to adapt to the new capabilities and collect sufficient standardized and historical information to perform more advanced planning functions. Several processes relating to the receipt, storage, distribution and disposal of materials have already been implemented under Umoja Foundation, especially in non-peacekeeping entities, which do not use the Galileo system; Extension 2 processes will focus heavily on planning and act as a catalyst for supply chain automation, optimizing inventory holdings.

68. Supply chain management will also support troop-contributing and police-contributing countries, through up-to-date information on mission requirements and rapid identification and optimized selection of providers and locations for materials, equipment and services, as well as by ensuring the quick movement and delivery of items.

*Phase 1: Galileo decommissioning and inbound/outbound processing*

69. In the first phase, Umoja supply chain management will replace Galileo in field missions for managing plant, equipment and machinery and enhance such functionality to meet the more robust requirements needed for field missions, such as inbound/outbound processing, integrated physical inventory verification, fleet equipment management and "pick and pack" functionality. The Galileo decommissioning project and, more importantly, the full utilization of Umoja supply chain management will achieve the important objective of harmonizing the asset accounting systems across the Organization into a single IPSAS-compliant financial system.

70. Decommissioning Galileo in the field, and introducing the Umoja supply chain management functionality, involves substantial change management. It affects nearly 5,000 users across multiple locations supporting functions critical to peacekeeping operations. The replacement of Galileo was deferred during the deployment of Umoja Foundation to the field in 2013, to mitigate the risk of field missions having to cope with too much organizational change. As an interim solution, Galileo, the Integrated Management Information System (IMIS) and Umoja were integrated for field missions as part of the deployment of clusters 1 and 2.

71. The migration from Galileo to Umoja supply chain management involves two critical components: (a) cleansing and enriching Galileo data substantially to conform to Umoja requirements; and (b) enhancing Umoja supply chain management to ensure that the entire Galileo functionality is fully replaced before the full deployment of supply chain management in the field. Data cleansing and enrichment is the responsibility of the missions; in the interests of efficiency and

consistency, it is being undertaken centrally in a "data factory" in Brindisi, Italy, in coordination with field missions. The Department of Field Support has mobilized substantial resources to cleanse, enrich and prepare data for conversion to Umoja, the costs of which are being borne by field missions. In parallel, the design of the Umoja enhancements has been completed and preparations are under way for the build phase. Both components are separate but converging requirements to ensure the decommissioning of Galileo in September 2017 and to continue to build and deploy the rest of Umoja supply chain management.

*Phase 2: demand and supply planning*

72. Demand planning addresses advanced planning capabilities to produce operational forecasts of acquisition plans for materials and services, including by aggregating requirements across the entities. It entails statistical demand forecasting based on historical consumption trends adjusted for different scenarios, and factoring in infrequent demand situations, such as elections.

73. Supply planning includes planning for supplier networks, replenishment and safety stock. It enables the preparation of operational-level plans to source and deliver goods and services at the right time and at optimized cost, taking into account aggregate demand forecasts, replenishment plan parameters, safety stock requirements and availability at different locations. It covers supply life cycle management, including transportation, export/import requirements and verification of shipping information.

74. Phase 2 is dependent on phase 1 and involves the deployment of the SAP Advanced Planning and Optimization software, which will require in-depth training for the project team to use and to configure it and which is already licensed to the Secretariat. Given that phase 2 is scheduled to start while phase 1 is being built, continued availability of skilled business resources has to be ensured for proper integration between the phases and to introduce new capabilities, complement contractual experts by providing insights about the Organization and receive knowledge about the software tools. The project will require that staff receive training in advanced supply chain planning methodologies, as well as the use of new software.

75. In the project workplan schedule, the build and testing of phase 2 have been compressed to enable the deployment of phase 3 before the end of 2018.

*Phase 3: long-term capabilities planning*

76. The project focuses on leveraging analytical information to perform strategic or long-term demand and supply planning, in consultation with programme management and strategic sourcing. It evaluates the capabilities of the current operations to achieve the projected long-term supply requirements and identifies supply and allocation issues by region. It also includes the steps required to review the effectiveness of the supply chain principles by measuring performance against established metrics and to validate recommendations for optimizing the supply network. It utilizes data on aggregated demand and spend analysis to enable sourcing analysis before the acquisition budget is established.

77. The functionality builds on the analytical capabilities of phase 2 processes and is inherently focused on the long term. Accordingly, although scheduled to be implemented by the end of 2018, it will mature only as phase 2 capabilities take root and more historical information and experience become available.

**Fundraising and donor relationship management**

78. The Umoja fundraising module has two primary components: donor relationship and programme budget formulation. The former will address the appeals for funds and the relationships with donors, while the latter will provide the programme content for both fundraising and donor reporting. The fundraising functionality also enriches the planning for implementation by providing better funds and cash flow forecasts and monitoring the revenue pipeline.

79. The fundraising and donor relationship functionality requires the SAP Customer Relationship Management software, which has not yet been deployed. The Secretariat already uses iNeed, which will be integrated with Umoja as part of the project. The programme budget formulation capabilities are being addressed by the Umoja budget formulation project described earlier.

80. The initial phase of the project, harmonizing business requirements related to fundraising and donor relationships, is scheduled for 2017, before commencing the design and build phase. It requires the active participation of the Office of Information and Communications Technology, owing to the integration of iNeed and Umoja. The final deployment of the integrated functionality is closely linked to the deployment of budget formulation and hence scheduled for the end of 2018.

**Implementing partners**

81. The Umoja grant management functionality, deployed as part of Umoja Foundation, allows the Organization to manage several parts of the process of its interaction with implementing partners for the delivery of programmes and projects funded by voluntary contributions. For example, the Organization is already able to capture its agreements with implementing partners, advance funds, record their performance and settle financial transactions with them.

82. The functionality will enhance interaction with implementing partners by providing a portal and tools for such partners to request funds, record progress of implementation and submit other performance details.

83. The project depends heavily on process experts who will be involved in the programme planning and reporting aspects of the budget formulation project. Consequently, it is scheduled to start in the fourth quarter of 2017, after key elements of the budget formulation project have been prototyped. The project will focus initially on implementing partners from the United Nations system and will pilot a small number of non-United Nations implementing partners, to mitigate change management risks.

**Conference and event management**

84. Umoja conference and event management comprises three main components: event planning, event implementation and document production and distribution.

Event planning covers the planning and management of: (a) the calendar for official conferences and meetings; (b) non-calendar conferences and meetings; (c) off-site conferences and meetings; and (d) special events. It also includes the allocation of resources, for example rooms, for such conferences and meetings. Event implementation covers the gamut of processes, from the creation of master data and the management of participants to event execution and follow-up. Document production and distribution covers the planning and management of document services, including resource allocation and billing for such services. It includes document production, as well as document distribution, including in print and other media.

85. The project will leverage existing systems and the currently deployed Umoja functionality and fill in the gaps in the entire life cycle of a conference or event. Some aspects of conference and event management, such as the registration of meeting participants (as business partners) and their travel arrangements, are already covered by the current Umoja functionality. Several processes relating to event planning and execution are currently implemented through such systems as eMeets, while the service management functionality is covered by iNeed. Document production and distribution processes are expected to be outside Umoja, as they require a document management system functionality not covered by it.

86. To provide an effective and efficient solution for Umoja conference and event management that addresses global organizational needs, the end-to-end processes will have to be carefully reviewed, as: (a) some of the existing systems are not deployed in all locations and entities; and (b) the complete life cycle for Umoja conference and event management is not covered by any of those systems. The project may, at a minimum, involve integrating Umoja with eMeets and iNeed for service management. The integrated solution will use the service catalogue from Umoja to drive cost estimates, associated billing, cost recovery and accounting.

87. The project comprises two phases to leverage the ongoing development of a "one-stop shop" solution by the Department for General Assembly and Conference Management, which seeks to address requests from Member States to simplify the event coordination processes. In collaboration with the Department and the Office of Information and Communications Technology, the initial design phase will be used to adapt the corresponding Extension 2 process definition documents to reflect the new business requirements for the conference and event management life cycle. Thereafter, the definitive scope of each of the two project phases will be adjusted to ensure synergy between Umoja conference and event management and the "one-stop shop" solution.

88. The first phase is planned for the third quarter of 2017, and the second phase is scheduled for deployment by the third quarter of 2018. While the full Umoja functionality for conference and event management will have been built and deployed by 2018, the standardization of processes and tools across all locations and entities using Umoja may present challenges in fully deploying the standard solution globally across the Secretariat by the end of 2018.

**Force management**

89. Umoja force management has three main components: "plan to mandate"; "mandate to mission"; and downsizing and liquidation.

90. "Plan to mandate" covers the development of a plan to support the proposals for mandate approval either for a new mission or for adapting an existing mission, using system-generated templates, by adjusting the number of positions, materials (contingent-owned equipment), provisions and infrastructure planning objects. During the project's detailed design phase, it will be confirmed if this would require the implementation of the SAP defence force planning system, which is already licensed. Preliminary analysis in the early phases of the Umoja project would have to be refreshed to determine the scope and technology options.

91. "Mandate to mission", which involves adjusting plans on the basis of mandate approval by the Security Council, is covered by the Umoja budget formulation project. Likewise, planning for downsizing or liquidation is covered by that project.

92. Given the need for an additional review of requirements and technology options, as well as the linkage to the Umoja budget formulation project, the deployment of Umoja force management, specifically force planning, is scheduled towards the end of 2018.

**Other projects**

93. Umoja Extension 2 includes several processes, described below, that will involve incremental updates to the existing functionality, or integrating the current Umoja functionality with other systems. They will be designed, built and deployed during 2017 and 2018, in parallel with the other Umoja Extension 2 projects.

94. Reimbursements to troop/police-contributing countries, including for personnel and contingent-owned equipment, have been processed through Umoja since November 2015. However, several upstream processes are processed outside Umoja using different systems. Missions use the electronic contingent-owned equipment system (eCOE) to manage contingent-owned equipment verifications. Its output is used by the Department of Field Support to manually update the government claims management system for reimbursement calculations. The troops database system used by the Office of Programme Planning, Budget and Accounts of the Department of Management, which is currently being enhanced to allow contingents in the missions to input data directly from the field, is the source of record for the underlying services rendered by troops and formed police units and is the basis for calculation of personnel reimbursements. Outputs from both the government claims management system and the troops database system are verified and uploaded to Umoja to enable payments.

95. The project will address the life cycle of reimbursements to troop/police-contributing countries and will enhance the process either by adding a functionality in Umoja or by integrating with the existing systems. The government claims management system needs urgent replacement, as it uses dated technology components, and recent changes to the reimbursement framework are not fully reflected in it owing to its impending replacement, necessitating manual adjustments to calculations. The project is scheduled in two phases to balance the urgency of

replacing the government claims management system with the potential need to integrate with Umoja supply chain management and force management.

96. The Member States' portal for the status of contributions has to be replaced by Umoja. The calculation of assessments is already uploaded into Umoja to generate assessment letters, including adjustments for credits. While the calculation of assessments is expected to remain outside Umoja, the deployment of virtual bank accounts is expected to improve the current banking arrangements, as well as ensure the timely application of credits.

97. Umoja Extension 2 includes several service management processes, such as: (a) requests for services relating to information and communications technology (ICT), facilities and transport, among others; and (b) work order management, which covers requests and fulfilment, including notification processing, resource planning and scheduling. Service management processes also include planning and monitoring preventive maintenance for buildings, equipment and others, based on maintenance cycles determined by time or other criteria, and generating work orders for such maintenance.

98. The iNeed enterprise system already provides many of the functionalities for service management and is used by many service providers. As Umoja includes inventory management, costing and billing functionalities not available in iNeed, the latter will be integrated with Umoja to provide end-to-end service management and avoid duplication of functionality across those systems.

## D. SAP upgrade

99. The software vendor provides periodic upgrades to the software as part of the annual maintenance agreement. Contractually, upgrades have to be implemented within a specified period to receive continued support. A software upgrade for Umoja has to be implemented by 2020 in order to ensure continued support and to benefit from software improvements to the manager and employee self-service portal screens and other key functionalities. However, the timing of the upgrade has to be carefully planned, as it can be disruptive and requires significant time and resources to install, undertake technical verification, update end user documentation and conduct change management activities.

100. The upgrade can be tested only after phase 1 of Umoja supply chain management is deployed in September 2017; phase 2 will be built and tested on the upgraded software in the development and test environments, respectively. The production software upgrade will be timed with the deployment of phase 2 of supply chain management in the third quarter of 2018.

## E. Improvements to Umoja Integration

101. The project covers improvements that were identified through the post-implementation review task force initiatives, as well as potential gaps identified in implemented processes through ongoing consultation with process owners and end users. For example, bulk extension of staff contracts and updating reference tables are improvements that have great potential for reducing manual effort and errors.

The project also includes a review to simplify travel management, based on lessons learned from clusters 3 and 4.

102. The improvements are scheduled primarily for 2016 and 2017 to leverage and accommodate the availability of process experts that are also supporting the stabilization and adoption of the Foundation and Extension 1 processes.

## V. Realization of benefits

103. In its resolution 70/248 A, the General Assembly requested the Secretary-General to accelerate the development of benefits realization plans and to report thereon in the next progress report, without prejudice to established budgetary procedures and the prerogatives of the Fifth Committee.

104. As recommended by the Board of Auditors in its fourth and fifth annual progress reports on the implementation of Umoja (see A/70/158 and A/71/180, respectively), the benefits targets have been reviewed on the basis of experiences gained in using Umoja. Process owners reviewed previously identified areas, as well as new areas of potential impact.

105. The modified approach links qualitative improvements to possible quantitative benefits. It tries to leverage the measurement and comparability of pre- and post-Umoja transaction volumes, or other drivers wherever available, to enrich the assessment of benefits. The quantitative benefits already achieved and opportunities for process re-engineering have been taken into account, wherever possible, for projections; the processes eliminated by Umoja and the redistribution of work among locations and organizational entities have also been factored in.

106. The Secretary-General has repeatedly stressed that the full deployment and stabilization of Umoja will be a precondition for the realization of quantitative benefits and that such stabilization can take up to one calendar year after deployment; this has been factored into most benefit estimates.

107. With Umoja being the catalyst and enabler of global service delivery model initiatives, the related proposals have been aligned to avoid double counting of potential benefits. Consequently, the global service delivery model report contains an outlook only on those benefits that can be achieved through consolidation of administrative services.

### Qualitative improvements

108. The qualitative improvements brought about by Umoja cannot be overemphasized. Real-time visibility of Organization-wide, better-integrated information will lead to more informed resource management decisions.

*Human resources*

109. In human resources management, Umoja has brought real-time visibility to global personnel data. Human resources administration and entitlement processing have been improved through employee and manager self-service and automated workflows, reducing manual inputs and facilitating the real-time tracking of all personnel requests or activities. Education grant advances and settlements, salary

advances and final pay settlement have all been streamlined, eliminating manual processes.

110. Umoja has simplified staff movements across duty stations by eliminating complex, time-consuming transfer scripts, enabling more timely payments of entitlements in such situations. Some human resources processes, while efficient overall, require increased monitoring, user support for self-service, and validation of information submitted through self-certification.

*Finance*

111. Umoja has brought the full integration of IPSAS accounting requirements, better and real-time visibility to global resource mobilization and utilization, better cost measurement and improved cash management.

112. Information on budget consumption and funds availability across entities and funding sources is available in real time. The life cycle of commitments, goods receipt, invoicing and disbursements provides timely and global information for funds and cash flow management, including currency requirements. For example, more than 57,000 commitment documents have been created in 138 currencies, covering about 37,000 budget lines.

113. The Organization has a better view of and greater assurance as to what it is spending on, because only materials and services in the catalogue can be purchased and the expenses are automatically classified. The integration of purchases with inventory and assets also provides assurance that all purchases are physically accounted for in full.

114. For extrabudgetary resources, Umoja has enabled the existence of a central repository of all contribution agreements, currently numbering more than 14,700, and provided visibility to current and future period inflows. It has strengthened compliance with the terms of donor agreements, improved tracking of the performance of implementing partners, automated interest allocation to grants and generally provided capability for improved management of programmes and projects. Umoja Extension 2 will strengthen resource mobilization and utilization through the management of donor relationships and implementing partners.

115. Managing accounts receivable and payable has improved significantly. Umoja provides a clear picture of more than 100,000 monthly payment transactions and the opportunity to offset receivables against payables to vendors across business areas, which was not possible under the legacy systems.

116. The global deployment of Umoja and the consequent reorganization of banking arrangements have resulted in a significant reduction in bank accounts and funds remittances. Elimination of inter-office vouchers and settlements is expected to obviate associated manual efforts in financial accounting.

117. A single payroll system for all categories of personnel in all duty stations, with complete integration of personnel, finance and banking data, has produced both benefits and challenges. It has forced tighter coordination for payroll processing, including harmonization of processes that have an impact on payroll, and allowed the centralized administration of data transmission to insurance carriers and the Pension Fund, among others.

118. Umoja has also simplified the remittance and settlement of payroll deductions, such as staff association dues and United Nations Federal Credit Union deductions. Tax processing has improved through more flexible payment processing and electronic settlements for United States taxpayers, which eliminate problems in mailing cheques, especially for staff on field assignments. The interface with the Pension Fund has also been improved. Bulk payments to consultants and individual contractors are also easier; some additional improvements to the related processes are also in progress. Increased numbers of express travel claims facilitated through planned enhancements to the travel module are anticipated to reduce manual processing of travel claims.

119. Interfaces with vendors, such as travel agents and suppliers of office supplies, can reduce processing time and effort in requisitioning and in managing accounts payable. However, reaping the full benefit in such areas will require long-term supply arrangements and new interfaces.

*Central support services*

120. Umoja provides better visibility to the global real estate portfolio, covering 64 entities in more than 150 countries; information covers nearly 47,000 architectural objects, including about 5,800 buildings in nearly 1,900 sites, and more than 1,200 real estate lease contracts either as tenant or landlord. More than $8.6 million in rental income has been collected through the real estate solution.

121. Travel management has changed significantly. Employee self-service has eliminated paper-based travel requests and shifted parts of the travel processing to travellers, saving effort in many areas but sometimes adding to demand for support and downstream accounting challenges. A standard three-step process involving a traveller, a certifying officer and a travel officer has eliminated several steps in previous systems.

122. An integrated global system provides real-time analysis of travel information and costs. Users and travel managers can better assess performance through standardized key performance indicators, access airline ticket prices and itineraries and see average costs per ticket, top routes and costs per transaction; they can monitor advance purchases of tickets, access global price information for more competitive airline rates and be better positioned to forecast and plan travel, thus making more informed and cost-effective decisions, as well as reducing the late processing of travel requisitions. The system also contains the travel regulations and rules to support compliance. Further improvements to travel processes, currently under consideration, may offer scope for better user experience and greater efficiencies in travel management costs.

123. Umoja has enabled the implementation of a global procurement operating model. Through master data management, 31,000 unique suppliers for all Secretariat entities are currently consolidated in Umoja. A global commercial suppliers database, combined with a rigorous codification of the types of goods and services procured by the Organization, reinforces the holistic visibility of business relationships and improves opportunities for negotiating more favourable terms.

124. The procure-to-pay process has the potential to yield discounts from vendors, such as prompt payment discounts. In many cases, such provisions have already

been included in contractual agreements; the Organization will redouble its efforts to further negotiate with vendors the best terms and conditions for payment, with the current increased ability to monitor the verification of goods and services, certification of invoices and status of payments. However, the realization of such benefits in practice depends largely on diligence in receipt and inspection, certification, invoice processing and disbursements; in a best-case scenario, 50 per cent of prompt payment discounts in high-value contracts could be realized in practice.

125. Similarly, better contract management through the consolidation of about 3,200 systems and local contracts has the potential to prevent duplicative procurement.

*Supply chain and logistics*

126. Umoja provides an integrated supply chain operation from shopping cart to procurement, goods receipt, stocking of materials, issues and consumption. With clusters 3 and 4, this includes a global view of nearly 12,000 materials in 78 storage locations and improved visibility on shipments through inbound delivery monitoring. With the decommissioning of Galileo in field missions in 2017, Umoja will be able to provide better management of inventory globally. Demand and supply planning capabilities will be further enhanced with the deployment of Umoja Extension 2 supply chain management.

*Technology and data management*

127. The primary benefit driver in technology and data management has been the retirement of several legacy systems from active use, following their replacement by Umoja. In addition to savings in hardware, software and associated human resources, the ensuing simplification of the information technology systems and support landscape has enabled a more focused and targeted information technology support. As additional business intelligence capabilities are implemented, more benefits are anticipated from better aggregation of data and from reducing the number of reporting databases.

**Quantitative benefits**

128. The Secretary-General remains committed to delivering the overall quantitative benefits, totalling between $140 million and $220 million, by 2019. Table 2 provides a summary of the quantitative benefits in the amount of $50.0 million under the regular budget for the bienniums 2014-2015 and 2016-2017 and in the amount of $19.7 million under the peacekeeping and support account budgets for the periods 2015/16 and 2016/17 that have been realized. It also includes the benefits to be reflected in the regular budgets for the bienniums 2018-2019 and 2020-2021 and the peacekeeping and support account budgets for the periods 2017/18 to 2020/21. Cumulative benefits amounting to $163.7 million will have been realized by the end of 2019 and $205.5 million by the end of 2020-2021.

Table 2
**Umoja quantitative benefits**
(Millions of United States dollars)

| *Regular budget* | | *Peacekeeping* | |
|---|---|---|---|
| 2014-2015 | 2.3 | 2013-2015[a] | 1.2 |
| 2016-2017 | 47.7 | 2016/17 | 18.5 |
| | | 2017/18 | 33.2 |
| 2018-2019 | 27.8 | 2018/19 | 33.0 |
| **Subtotal, until 2019** | **77.8** | **Subtotal, until 2019** | **85.9** |
| | | 2019/20 | 9.0 |
| 2020-2021 | 7.2 | 2020/21 | 25.6 |
| **Subtotal, until 2021** | **7.2** | **Subtotal, until 2021** | **34.6** |
| **Total** | **85.0** | **Total** | **120.5** |
| **Total benefits to be realized by 2019** | | | **163.7** |
| **Total benefits to be realized by 2021** | | | **205.5** |

[a] Reduction in bank charges over several financial periods.

129. Umoja has shifted work away from administrative support units to individual staff members through employee self-service and certification, and to work among duty stations through the globalization of operations, and eliminated certain tasks by automating workflows or improving processes. Those aspects form the basis for the quantitative benefits case in administrative support and other costs.

130. Estimated efficiency gains in human resources processes derive mainly from the following functionalities at the current stage: (a) employee self-service for time management, especially for annual and sick leave requests and for monthly and annual time certification; (b) employee self-service and certification for rental subsidy; and (c) streamlined personnel action processing, eliminating a separate approval by human resources partners.

131. The initially assumed benefits in the finance work stream have already been realized; therefore, further benefits will depend on such improvements as adding interfaces to more suppliers and adjusting service delivery models.

132. In travel arrangement and claim processing, quantitative benefits are expected to materialize in future budgets in all organizational units as further improvements are made to the Umoja travel module for more express travel arrangement and claims. Vendor discounts will be achieved from a global procurement operating model leveraging better acquisition planning and early payment discounts, among others.

133. Umoja supply chain management is anticipated to generate significant quantitative benefits starting in the last quarter of 2019, after Umoja Extension 2 supply chain management is stabilized.

134. A total of 456 legacy systems have been retired and have either been or are being decommissioned as a result of Umoja deployment. Cluster 5 and Umoja Extension 2 will yield additional savings from the decommissioning of such systems as Progen and Galileo, used in peacekeeping and special political missions.

## VI. Mainstreaming, reorganization and reprofiling of resources

135. In its resolution 70/248 A, the General Assembly requested the Secretary-General to continue to develop and retain in-house expertise on Umoja and to develop, as a matter of priority, a detailed action plan to ensure the transfer of knowledge from consultants to programme and project staff and that the knowledge acquired is maintained within the Organization, and to provide detailed information in the context of the next progress report.

136. Until recently, preparing successive deployments and managing post-deployment challenges exerted considerable pressure on a limited pool of process experts, which constrained knowledge transfer from contractors to staff. As clusters 3 and 4 have begun to stabilize, such knowledge transfer has been accelerated and, since June 2016, there has been a progressive drawdown of contractual resources wherever feasible.

137. The wider pool of business process experts across the Organization is also being gradually expanded. Embedding staff from different business areas in the project and returning them later to their respective offices has created a network of experts that can function in global cross-functional teams to address global issues. The continuation of such joint capacity-building and the ability to tap such expertise will remain a critical success factor for the successful implementation of Umoja Extension 2 and for ensuring sustainable capacity for the long term.

138. With those in mind, Umoja Extension 2 preparation has a stronger approach to having staff and contractors work closely within integrated teams and to including specialized training for staff ahead of time, so as to reduce time and costs associated with the transfer of knowledge from specialist consultants and contractors. As indicated in section VIII, on resource requirements, the progressive drawdown of contractors is based on that plan.

139. Planning for concurrent Umoja Extension 2 work streams, including some that involve new functional areas and technologies, has also necessitated a reorganization of the staff and contractual resources around fewer integrated teams to achieve greater consolidation of and integration across SAP business and technical functions. The reorganization and reprofiling of the project's post structures from 2017 has also become a critical requirement to assure an optimally reduced team with sufficient skills across all functional and tecnnical areas to sustain support for Umoja when its full scope has been implemented. Accordingly, project staff are being cross-trained in related areas of expertise wherever current and anticipated demands on their time permit.

140. As shown in the organizational structure presented in the seventh progress report, the Umoja team is currently composed of 90 staff. As at 31 August 2016, 77 of the 90 posts were encumbered, 3 were under recruitment, 5 were blocked for staff on assignment and 5 were frozen in anticipation of the downsizing of the project, as illustrated in table 3.

Table 3
**Status of Umoja post incumbency and vacancies as at 31 August 2016**

| *Status* | *ASG* | *D-2* | *D-1* | *P-5* | *P-4* | *P-3* | *P-2* | *GS (PL)* | *GS (OL)* | *Total* |
|---|---|---|---|---|---|---|---|---|---|---|
| Encumbered | | | | | | | | | | |
| Regular | 1 | 1 | 5 | 19 | 30 | 8 | 1 | 1 | 8 | 74 |
| Temporary | – | – | 1 | 1 | – | – | – | – | 1 | 3 |
| **Subtotal, encumbered** | **1** | **1** | **6** | **20** | **30** | **8** | **1** | **1** | **9** | **77** |
| Vacant | | | | | | | | | | |
| Under recruitment | – | – | – | – | 2 | 1 | – | – | – | 3 |
| Temporarily vacant | – | – | – | 1 | 2 | – | – | – | 2 | 5 |
| Permanently vacant | – | – | 1 | – | 3 | – | – | – | 1 | 5 |
| **Subtotal, vacant** | **–** | **–** | **1** | **1** | **7** | **1** | **–** | **–** | **3** | **13** |
| **Total, authorized** | **1** | **1** | **7** | **21** | **37** | **9** | **1** | **1** | **12** | **90** |

*Abbreviations*: ASG, Assistant Secretary-General; GS, General Service; OL, Other level; PL, Principal level.

141. To meet the multiple objectives of gearing up for Extension 2 implementation, mainstreaming the support for Foundation and Extension 1 and initiating the first phase of the downsizing of the project team, the project has to implement a significant reorganization of functions, accompanied by a resulting staffing plan that would allow further reprofiling during 2018 and 2019.

142. For 2017, the new organizational structure and distribution of posts, comprising 78 posts as illustrated in the annex to the present report, includes a smaller number of integrated teams to progressively consolidate functions and skills and reduce the dedicated resources assigned to administrative and support functions, project management, change management and deployment and realization. Of the 78 proposed posts, 64 will be consolidated under: (a) the solution architecture and business analysis team; (b) the delivery management team; and (c) the deployment, realization and technical projects team. The consolidation is designed to generate greater synergies across work streams in connection with the concurrent tracks of continuous improvements relating to Umoja Integration and the build and deployment of Extension 2. In addition, eight posts (5 P-5 and 3 P-4) are being assigned, beginning in 2017, to the various business areas and the Office of Information and Communications Technology as part of the mainstreaming transition to build capacity in those areas to sustain the support for Umoja, including for Umoja Extension 2 deployment coordination.

143. The reorganization will allow for the abolishment of 21 posts, comprising 3 D-1, 4 P-5, 10 P-4 and 4 General Service (Other level) posts, in areas where resources can be drawn down, if not eliminated, and their residual work, if any, delivered through the new consolidated team structure along with the mainstreaming in progress. Concurrently, nine new posts, comprising three P-3, two P-2 and four General Service (Principal level) posts, are proposed for establishment to complement the reorganization and reprofiling based on the new mix of skill sets

and complexity of the functions to be performed in the future, especially when the full scope of Umoja has been deployed. Consequently, for 2017, the programme of work and related resource proposals outlined in the present report provide for a total of 78 posts, as reflected in the annex.

144. The 21 posts proposed to be abolished, including their current functional area of assignment, are identified in table 4 below.

Table 4
**Posts proposed for abolishment in 2017**

| *Post level* | *Function/work stream* | *Position number* |
|---|---|---|
| D-1 | Human resources management | 30077737 |
| D-1 | Change management | 30077738 |
| D-1 | Project management | 30077739 |
| P-5 | Deployment | 30077745 |
| P-5 | Finance | 30078021 |
| P-5 | Change management | 30077746 |
| P-5 | Project management | 30077750 |
| P-4 | Human resources management | 30077761 |
| P-4 | Human resources management | 30078027 |
| P-4 | Administration | 30077759 |
| P-4 | Project management | 30077755 |
| P-4 | Project management | 30077758 |
| P-4 | Office of the Assistant Secretary-General | 30079765 |
| P-4 | Project management | 30079781 |
| P-4 | Project management | 30079787 |
| P-4 | Treasury | 30079771 |
| P-4 | Human resources management — business intelligence | 30079780 |
| GS (OL) | Office of the Assistant Secretary-General | 30077732 |
| GS (OL) | Project management | 30077733 |
| GS (OL) | Deployment | 30079799 |
| GS (OL) | Information technology/training | 30078029 |

*Abbreviation*: GS (OL), General Service (Other level).

145. During 2018, the downsizing will continue with the abolishment of three P-5 and three P-4 posts, complemented by the establishment of two new P-2 posts to leverage the availability that year of young professionals programme candidates from the roster for information and telecommunication technology. Consequently, the resource proposals for 2018 envisage a further reduction to 74 posts as more functions are either eliminated or absorbed by business areas and the Office of Information and Communications Technology.

146. During 2019, depending on the pace of stabilization of Extension 2 deployments, there can be a further drawdown of 14 posts (1 Assistant Secretary-General, 2 D-1, 3 P-5, 4 P-4 and 4 General Service (Other level)) from the last quarter of the year. The drawdown plan will have to be preceded by an intensified SAP training programme for project staff and a planned transfer of knowledge and skills, both internally and from contractors, as the Extension 2 functionality takes root and demand for post-deployment support decreases.

147. In its resolution 70/248 A, the General Assembly requested the Secretary-General to develop detailed transition plans for the long-term support arrangements for the Umoja solution to be provided by the Chief Information Technology Officer and for the mainstreaming of Umoja, to provide detailed information on the governance, management and operational arrangements for the deployed phases and to report thereon in the next progress report.

148. The Umoja project team and the Office of Information and Communications Technology continue to collaborate in the development and implementation of the mainstreaming plan for ICT functions to be transferred to the Office, including opportunities for leveraging expertise and skills globally. The tasks already mainstreamed or in the process of being mainstreamed to the Office are as follows:

(a) The Office of Information and Communications Technology is already responsible for the entire infrastructure for Umoja, including services contracted to third-party vendors;

(b) The Office of Information and Communications Technology is currently coordinating the global ICT business intelligence resources to meet the heavy demand for reporting based on Umoja data. The transfer of additional business intelligence functions from Umoja to the Office is also imminent;

(c) The Office of Information and Communications Technology is progressively taking over the coordination of production support. While tier 2b tickets are processed by process owners' staff, and tier 3 tickets by Umoja experts, the Office is currently undertaking reviews across all tiers to improve the early resolution of problems at lower tiers (1 and 2a) and optimize the use of expert resources;

(d) The integration of all Umoja training courses into the Inspira learning management system is in progress, with collaboration among the Office of Information and Communications Technology, the Office of Human Resources Management and the Umoja team.

149. More functions are planned for imminent transfer to the Office of Information and Communications Technology, after ensuring that functions are reorganized and distributed among staff to ensure proper supervision of and accountability for such

functions. Those functions include user access provisioning, managing the migration of software code changes from development to production and maintaining the Umoja training system.

150. Global training coordination functions are planned to be mainstreamed to the Office of Human Resources Management from 2018. The Umoja project will continue to support content development, course planning and provisioning of expert trainers for Extension 2 projects until their deployment and stabilization. Refreshing the content periodically for Foundation and Extension 1 training and ensuring an adequate pool of trainers will have to be gradually taken over by the process owners, including by utilizing some of the resources assigned for mainstreaming transition.

151. Sustaining support for Umoja will also entail building capacity in business areas not only for training but also for testing and production support. During phases of significant software development, such as Extension 2, the pressure on limited process experts to concurrently deal with testing, training and production support becomes problematic. Building on lessons learned from the Headquarters deployment group and the Office of Human Resources Management, process owners will have to focus on building teams globally for testing, training and production support and identify and allocate skilled resources as part of mainstreaming to the business.

## VII. Risk management

152. In its resolution 70/248 A, the General Assembly requested the Secretary-General to conduct an objective assessment of the organizational readiness for business change to avoid deviations from the project's plans and cost projections and reiterated its request to make every effort to eliminate cost overruns through efficiency measures and sound project management.

153. The project continues to enhance its risk management to address new project challenges. The project's risk and issue database has been extended to key resources in the process owner and entity business units.

154. The following are the most significant risks being managed:

(a) Insufficient skilled human resources to fulfil the cumulative demand across all planned Umoja work streams, including with respect to production support and continuous improvement activities for functionality already deployed. The risk is heightened significantly for Umoja Extension 2, as the project, process owners and key business areas have to simultaneously replan capacity and reprofile skills inventory to design, build, test and deploy Umoja Extension 2 work streams, some of which involve new functional areas and tools;

(b) Deploying Umoja Extension 2 while concurrently downsizing the project team will increase pressure on skilled resources to participate in or support cross training and knowledge transfer. Downsizing also has the potential for premature departure of skilled resources;

(c) The availability of adequate capacity in the business areas to support all existing and new Umoja processes, once fully deployed, is a key risk to be

managed, especially considering the multiple change initiatives in which they might be involved. This includes the continuation of adequate staff capacity assigned from outside the project to relevant Umoja work streams, to ensure that requisite business engagement is effective and capacity for post-deployment support secured;

(d) Implementation of ICSC changes puts other work streams at risk. The complete overhaul of the salary scale structure requires a new payroll software solution from SAP and a retesting of the entire global population of the Secretariat payroll so soon after the implementation of clusters 3 to 5;

(e) Change management and user adoption challenges will continue beyond system stabilization. Although some system problems in specific functional areas will demand resolution, many post-deployment challenges will continue to relate to new ways of working and managing resources with the greater discipline that Umoja enforces. As a business transformation project, the success of Umoja will hinge on business re-engineering and continuous improvements, which will require time, resources and sustained post-deployment engagement by business units.

# VIII. Resource requirements

## A. Revised resource requirements for 2016-2017

155. In his seventh progress report, the Secretary-General had indicated that revised resource requirements for the biennium 2016-2017 would be submitted to the General Assembly for its consideration at the first part of the resumed seventieth session, taking into account the planning and financial implications of the unplanned activities undertaken in 2015, modifications and enhancements emerging after cluster 4 deployment for sustaining operations, and changes to the ICSC compensation package. The revised requirements were not submitted earlier owing to the intense pressure of the stabilization activities after cluster 4 deployment. The revised resource requirements for 2016-2017 are provided in the present report.

156. As mentioned in the seventh progress report, additional unplanned activities had an impact on the project's plans and resources, delaying the activities relating to cluster 5 and the design, build and testing for Umoja Extension 2. Nevertheless, while more resources were consumed for unplanned activities, some of the planned financial resources for Umoja Extension 2 were not expended, as process experts could not be assigned to those tasks, and hence have been reprogrammed into subsequent periods (see table 5).

157. During 2016, demand for post-deployment support continued longer than anticipated. Despite the new functionality not being deployed in cluster 4, compared with cluster 3, the diversity of the current practices and needs of cluster 4 entities exposed more challenges in adopting Umoja processes and uncovered new software issues. In addition to policy and process adjustments, more than 900 software fixes were delivered by the Umoja team, nearly 30 per cent of them being enhanced functionality.

158. At the same time, resources had to be assigned to support the enhancements related to ICSC changes. Consequently, several Umoja Extension 2 activities had to

be delayed and resources diverted to production support, stabilization and ICSC changes.

159. The Umoja project has recently undertaken a detailed review of the Extension 2 processes in order to better assess the effort and dependencies in building and deploying them by the end of 2018. The assessment also resulted in the decision to start the testing of the SAP software upgrade from September 2017 and deploy it concurrently with phase 2 of supply chain management. This will also affect the resource utilization during 2017.

160. The revised resource requirements for the biennium 2016-2017 also reflect the initial phase of the reprofiling of the staff resources and skills inventory to adapt to the needs of Umoja Extension 2, as well as the eventual downsizing and mainstreaming of the project team, outlined in section VI above.

161. Table 5 presents the updated actual expenditure for the biennium 2014-2015, including unused funds for delayed activities, and table 6 presents the additional resources required for the biennium 2016-2017, after deducting the unused funds for the biennium 2014-2015.

Table 5
**Expenditure for the biennium 2014-2015**
(Thousands of United States dollars)

| *Object of expenditure* | *Projected in A 69 383* | *Actual* | *Difference (increase/(decrease))* |
|---|---|---|---|
| Posts | 32 490.9 | 30 954.9 | (1 536.0) |
| Other staff costs | 22 359.0 | 18 216.7 | (4 142.3) |
| Consultants and experts | 1 066.4 | 641.3 | (425.1) |
| Travel of staff | 2 999.8 | 2 407.2 | (592.6) |
| Contractual services | 58 501.3 | 50 260.2 | (8 241.1) |
| General operating expenses | 5 917.8 | 5 308.5 | (609.3) |
| Supplies and materials | 178.7 | 35.7 | (143.0) |
| Furniture and equipment | 5 872.1 | 3 694.0 | (2 178.1) |
| **Total** | **129 386.0** | **111 518.5** | **(17 867.5)** |

Table 6
**Revised resource requirements for 2016-2017**
(Thousands of United States dollars)

| *Object of expenditure* | *Projected in A/69/385* (1) | *Revised* (2) | *Difference (increase/ (decrease))* (3)=(2)-(1) | *Unused balance 2014-2015* (4) | *Additional net requirements 2016-2017* (5)=(3)-(4) |
|---|---|---|---|---|---|
| Posts | 21 534.0 | 28 045.0 | 6 511.0 | 1 536.0 | 4 975.0 |
| Other staff costs | 9 989.7 | 14 897.6 | 4 907.9 | 4 142.3 | 765.6 |
| Consultants and experts | 929.2 | 964.6 | 35.4 | 425.1 | (389.7) |
| Travel of staff | 1 903.8 | 1 250.0 | (653.8) | 592.6 | (1 246.4) |
| Contractual services | 15 650.0 | 47 500.0 | 31 850.0 | 8 241.1 | 23 608.9 |
| General operating expenses | 4 051.9 | 4 940.0 | 888.1 | 609.3 | 278.8 |
| Supplies and materials | 121.9 | 85.0 | (36.9) | 143.0 | (179.9) |
| Furniture and equipment | 111.2 | 1 288.4 | 1 177.2 | 2 178.1 | (1 000.9) |
| **Total** | **54 291.7** | **98 970.6** | **44 678.9** | **17 867.5** | **26 811.4** |

*Posts and other staff costs*

162. The estimated requirement of $28,045,000 will provide for salary and common staff costs for 90 posts during 2016 and 78 posts (1 Assistant Secretary-General, 1 D-2, 4 D-1, 17 P-5, 27 P-4, 12 P-3, 3 P-2, 5 General Service (Principal level) and 8 General Service (Other level)) during 2017. The proposal reflects the reprofiling of the project posts based on the reorganization of functions as presented in the annex. It should be noted that the net increase of $4.975 million is due to the maintenance of the staffing complement at 90 for 2016, originally planned at 74 posts, and 78 for 2017, originally planned at 50 posts, as proposed in the sixth progress report (A/69/385).

163. The estimated requirements for other staff costs in the amount of $14,897,600 are for temporary positions numbering 41 in 2016 and 40 in 2017. The temporary positions cover a mix of staff hired for their specialized expertise, through secondments from other United Nations organizations or external recruitment, and business experts from various departments and offices. The net increase is due to the maintenance of the number of positions, which was supposed to be reduced to 30 for the biennium 2016-2017.

*Consultants and experts and contractual services*

164. A provision of $964,600 will be required for the continued services of six consultants providing expert services in real estate, logistics and project systems.

165. Projected resource requirements for contractual services amount to $47,500,000. The provision comprises the estimated cost of services required from the systems integrator and specialist services from SAP. While the expenditures until July 2016 have primarily been for supporting the stabilization of Umoja Integration across all clusters, the expenditures during the remainder of 2016 and

during 2017 will predominantly be for the design and build of Umoja Extension 2, in addition to some support for the SAP upgrade and for continuous improvements relating to the functionality already deployed. The net increase during the biennium is due to the postponement of Umoja Extension 2 design and build activities from 2015 to the current biennium and to a more detailed assessment, based on the experiences of Foundation and Umoja Extension 1, of the remaining work effort, including requirements for onshore and offshore contractors.

*Travel and training of project staff*

166. The estimated requirement of $1,000,000 for travel for project staff reflects an anticipated reduction in the need for travel of process experts for ramp-up activities and data conversion efforts. In addition to travel for training and deployment activities, the resources will support multiple workshops for finalizing business requirements and design specifications, proofs of concept and testing, among others.

167. An estimated $250,000 is required to fund the SAP technical training of project staff, which is critical for reducing dependence on contractual resources and to ultimately allow the phased downsizing of the core team to its final mainstreamed stage.

*General operating expenses*

168. Estimated requirements for general operating expenses in the amount of $4,940,000 provide for rent, office equipment, service-level agreements for computer maintenance and communications costs.

*Supplies and materials and furniture and equipment*

169. The estimated requirement of $85,000 for office supplies and materials and $1,288,400 for furniture and equipment covers the necessary office automation support for the project personnel, specialized hardware and licences for Umoja Extension 2 projects that involve different technologies and integration with multiple systems.

## B. Resource requirements for 2008-2017

170. On the basis of the updated estimated resource requirements for the biennium 2016-2017 presented above, the total actual and estimated expenditure of the project from 2008 to 2017 amounts to $466,163,400, compared with $439,352,000 projected in the sixth progress report, as shown in table 7 below.

Table 7
**Revised resource requirements for 2008-2017**
(Thousands of United States dollars)

| *Object of expenditure* | *2008-2015 actual* | *2016-2017 revised* | *Total* | *Approved amount* | *Increase (decrease)* |
|---|---|---|---|---|---|
| Posts | 76 456.6 | 28 045.0 | 104 501.6 | 99 526.6 | 4 975.0 |
| Other staff costs | 40 704.0 | 14 897.6 | 55 601.6 | 54 836.0 | 765.6 |
| Consultants and experts | 2 383.8 | 964.6 | 3 348.4 | 3 738.1 | (389.7) |
| Travel of staff | 5 629.9 | 1 250.0 | 6 879.9 | 8 126.3 | (1 246.4) |
| Contractual services | 175 599.2 | 47 500.0 | 223 099.2 | 199 490.3 | 23 608.9 |
| General operating expenses | 18 893.4 | 4 940.0 | 23 833.4 | 23 554.6 | 278.8 |
| Supplies and materials | 891.5 | 85.0 | 976.5 | 1 156.4 | (179.9) |
| Furniture and equipment | 46 634.4 | 1 288.4 | 47 922.8 | 48 923.7 | (1 000.9) |
| **Total** | **367 192.8** | **98 970.6** | **466 163.4** | **439 352.0** | **26 811.4** |

## C. Projected resource requirements for 2018 and 2019

171. As indicated in the Umoja schedule and workplan detailed in figure III above, it is expected that 2018 will be marked by an intense period of building, testing and deploying for many of the concurrent work streams for Umoja Extension 2. Unlike in 2017, deployment activities will intensify, while the pace and volume of demands for enhancements to the Foundation and Umoja Extension 1 functionality should decrease.

172. During 2019, most of the Umoja Extension 2 functionalities deployed will be in the extensive support phase. Based on lessons learned from previous deployments, a post-implementation review task force would be needed to channel and address the challenges relating to the adoption of the new functionality. While contractual resources can be further reduced during 2019, the reduction of project staff will have to be more gradual, starting from the last quarter of 2019, to allow for potential delays in deployment and unanticipated post-deployment problems. During that period, additional SAP as well as functional and technical cross training for project staff will be essential to support the downsizing of the project team without compromising the ability to sustain production support for all Umoja functionality deployed.

173. Estimates of the project resource requirements for 2018 and 2019, explained later, are summarized by object of expenditure in table 8 below.

Table 8
**Projected resource requirements for 2018-2019**
(Thousands of United States dollars)

| *Object of expenditure* | *2018* | *2019* | *2018-2019* |
|---|---|---|---|
| Posts | 13 200.0 | 12 000.0 | 25 200.0 |
| Other staff costs | 5 600.0 | 4 400.0 | 10 000.0 |
| Consultants and experts | 500.0 | 300.0 | 800.0 |
| Travel of staff | 750.0 | 450.0 | 1 200.0 |
| Contractual services | 23 000.0 | 12 000.0 | 35 000.0 |
| General operating expenses | 2 500.0 | 2 500.0 | 5 000.0 |
| Supplies and materials | 50.0 | 50.0 | 100.0 |
| Furniture and equipment | 300.0 | 200.0 | 500.0 |
| **Total** | **45 900.0** | **31 900.0** | **77 800.0** |

Table 9
**Projected total resource requirements for the Umoja project**
(Thousands of United States dollars)

| | *2008-2015 actual* | *2016-2017 revised* | *2008-2017 total* | *2018-2019 projected* | *Total* |
|---|---|---|---|---|---|
| *Object of expenditure* | *(1)* | *(2)* | *(3)=(1)+(2)* | *(4)* | *(5)=(3)+(4)* |
| Posts | 76 456.6 | 28 045.0 | 104 501.6 | 25 200.0 | 129 701.6 |
| Other staff costs | 40 704.0 | 14 897.6 | 55 601.6 | 10 000.0 | 65 601.6 |
| Consultants and experts | 2 383.8 | 964.6 | 3 348.4 | 800.0 | 4 148.4 |
| Travel of staff | 5 629.9 | 1 250.0 | 6 879.9 | 1 200.0 | 8 079.9 |
| Contractual services | 175 599.2 | 47 500.0 | 223 099.2 | 35 000.0 | 258 099.2 |
| General operating expenses | 18 893.4 | 4 940.0 | 23 833.4 | 5 000.0 | 28 833.4 |
| Supplies and materials | 891.5 | 85.0 | 976.5 | 100.0 | 1 076.5 |
| Furniture and equipment | 46 634.4 | 1 288.4 | 47 922.8 | 500.0 | 48 422.8 |
| **Total** | **367 192.8** | **98 970.6** | **466 163.4** | **77 800.0** | **543 963.4** |

*Posts and other staff costs*

174. The estimated requirement of $25,200,000 will provide for salary and common staff costs for 74 posts during 2018 and for 60 posts during 2019. The proposal for 74 posts in 2018 (1 Assistant Secretary-General, 1 D-2, 4 D-1, 14 P-5, 24 P-4, 12 P-3, 5 P-2, 5 General Service (Principal level) and 8 General Service (Other level)) reflects the second phase of the downsizing of the project team, combined with additional mainstreaming that will fine-tune the rightsizing of the project and the ongoing rationalization of its cost structure. With effect from January 2018, three P-5 and three P-4 posts are proposed to be abolished and two additional P-2 posts created, in order to leverage the young professionals programme roster in

information and telecommunication technology that will become available by the end of 2017.

175. During 2019, depending on the pace of stabilization of Umoja Extension 2, the number of positions could be gradually reduced to a total of 60 from the last quarter of the year, with 1 Assistant Secretary-General, 2 D-1, 3 P-5, 4 P-4 and 4 General Service (Other level) to be proposed for abolishment and most administrative and support functions being eliminated as a core team is mainstreamed into the Office of Information and Communications Technology beginning in 2020.

176. The estimated requirements for other staff costs in the amount of $10,000,000 reflect a provision for 32 temporary positions during 2018 and 24 temporary positions during 2019. Those positions cover the continued engagement of business experts during 2018 and the gradual reduction of resources in 2019, depending on the pace of stabilization of Umoja Extension 2.

177. In 2020, it is anticipated that the core team could be further reduced to 50 positions through additional consolidation of functions and cross training of staff, which the project intends to accelerate with the proposed reorganization from 2017.

*Consultants and experts and contractual services*

178. A provision of $800,000 will be required for the continued services of consultants for expert services in logistics and project systems during 2018 and their phased abolishment in 2019.

179. Projected resource requirements in the amount of $35,000,000 for contractual services comprise the estimated cost of services required from the systems integrator and specialist services from SAP, primarily for the Umoja Extension 2 design and build during 2018 ($23,000,000), and for post-deployment support, stabilization, enhancements to Umoja Extension 2 and transfer of knowledge to staff during 2019 ($12,000,000).

*Travel and training of project staff*

180. The estimated requirement of $750,000 for travel for staff reflects the projected demand during 2018 for travel of process experts for supporting ramp-up activities and data conversion efforts for several concurrent Umoja Extension 2 work streams and for additional design and testing workshops. During 2019, a reduced level of resources is still needed for training and post-deployment support, including resolution of business adoption challenges needing expert advice from the core project team.

181. An estimated $450,000 for SAP technical training is required for the continued training of core project staff to reduce dependence on contractual resources and for accelerated downsizing during 2019.

*General operating expenses*

182. Estimated requirements for general operating expenses in the amount of $5,000,000 provide for rent, office equipment, service-level agreements for

computer maintenance, and communications costs, with rent being the predominant expense.

*Supplies and materials and furniture and equipment*

183. The estimated requirements of $100,000 for office supplies and materials and $500,000 for furniture and equipment are necessary to support the needs of project personnel during 2018 and 2019.

# IX. Umoja operating, maintenance and support costs

184. Post-deployment operating, maintenance and support costs are not included in the project budget. Such costs, including production hardware, software licence maintenance, hosting services, telecommunications and technical support, are recurring business operating costs after deployment and are therefore included in the budget of the Office of Information and Communications Technology, as well as in peacekeeping budgets. The requirements for the biennium 2018-2019 are reflected in the report of the Secretary-General on the status of implementation of the information and communications technology strategy for the United Nations (A/71/400) and will be included in the proposed budget outline for the biennium 2018-2019.

# X. Summary of resource requirements and request for action by the General Assembly

## A. Proposed financing of projected resource requirements for 2016 and 2017

185. In its resolution 63/262, the General Assembly endorsed the cost-sharing arrangement for the financing of the enterprise resource planning project proposed by the Secretary-General in paragraph 79 of his report on enterprise systems for the United Nations Secretariat worldwide (A/62/510/Rev.1). The approved cost-sharing arrangement is 15 per cent from the regular budget, 62 per cent from the support account for peacekeeping operations and 23 per cent from the special accounts for programme support costs.

186. The Secretary-General requests that the additional resource requirements necessary to complete the planned activities to be undertaken during the remainder of 2016 and during 2017 be approved by the General Assembly. The proposed financing of the additional requirements, as well as those for 2018 and 2019, would be apportioned in accordance with the approved cost-sharing arrangement, as illustrated in tables 10 and 11 below.

Table 10
**Summary of proposed resource requirements to be approved by the General Assembly for 2016 and 2017, by source of funding**
(Thousands of United States dollars)

| *Source of funds* | *Approved resources* | *Revised requirements* | *Proposed additional requirements* | *Percentage* |
|---|---|---|---|---|
| Regular budget | 65 902.7 | 69 924.5 | 4 021.8 | 15 |
| Support account for peacekeeping operations | 272 398.3 | 289 021.3 | 16 623.0 | 62 |
| Extrabudgetary | 101 051.0 | 107 217.6 | 6 166.6 | 23 |
| **Total** | **439 352.0** | **466 163.4** | **26 811.4** | **100** |

Table 11
**Summary of proposed resource requirements for 2018 and 2019, by source of funding**
(Thousands of United States dollars)

| *Source of funds* | *Proposed requirements* | *Percentage* |
|---|---|---|
| Regular budget | 11 670.0 | 15 |
| Support account for peacekeeping operations | 48 236.0 | 62 |
| Extrabudgetary | 17 894.0 | 23 |
| **Total** | **77 800.0** | **100** |

## B. Recommended actions to be taken by the General Assembly

**187. The General Assembly is requested:**

**(a) To take note of the progress made in the implementation of Umoja since the issuance of the seventh progress report;**

**(b) To approve the revised resource requirements of the project until 31 December 2017, as presented in table 6, and based on the reorganization, reprofiling and mainstreaming presented in section VI;**

**(c) To take note of the projected costs of the project for 2018 and 2019, as presented in table 8, which include a continuing downsizing based on progress of deployment and mainstreaming;**

**(d) To note that the estimated resource requirements for 2018 and 2019 will be included in the proposed programme budget for the biennium 2018-2019 and in the respective proposed budgets of the support account for peacekeeping operations for the same period;**

*Programme budget*

**(e) To appropriate an amount of $4,021,800 under the programme budget for the biennium 2016-2017 under section 29A, Office of the Under-**

**Secretary-General for Management, representing the regular budget share for the additional Umoja project costs until 31 December 2017, which would represent a charge against the contingency fund for the biennium 2016-2017;**

*Support account for peacekeeping operations*

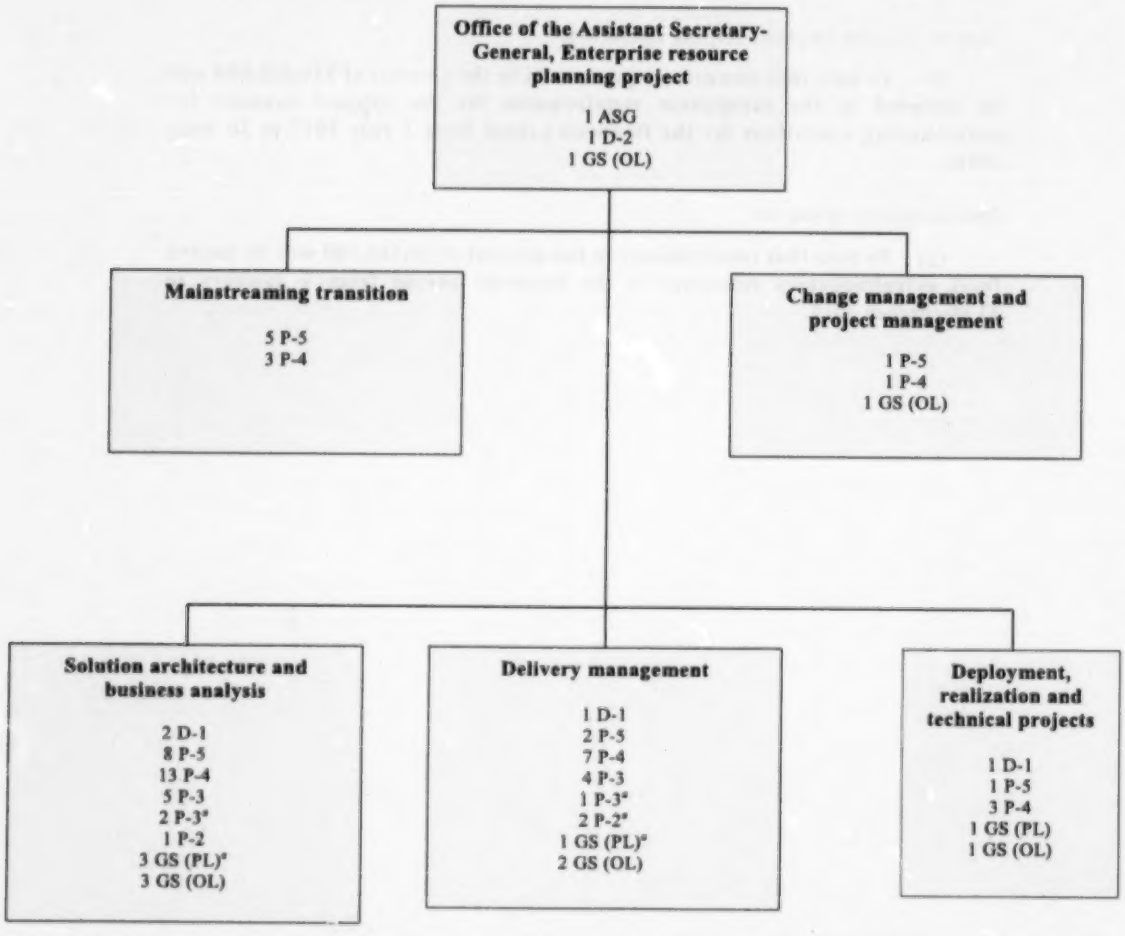
**(f) To note that resource requirements in the amount of $16,623,000 will be included in the subsequent requirements for the support account for peacekeeping operations for the financial period from 1 July 2017 to 30 June 2018;**

*Extrabudgetary resources*

**(g) To note that requirements in the amount of $6,166,600 will be funded from extrabudgetary resources in the financial period from 1 January to 31 December 2017.**

# Annex

## Organizational structure and post distribution for 2017




*Abbreviations*: ASG, Assistant Secretary-General; GS, General Service; OL, Other level; PL, Principal level.

[a] New post.